# Vessel Operating Units Compilation Protocol
# Spring 2013

Introduction

The Operating Units Survey is an "annual" survey of the active vessel participants in the fisheries. It should be noted that actual participation, as opposed to simply being licensed or permitted, is the operative criteria for both parts of the operating units survey.

Annually, port agents will be provided with a single file that attempts to list all vessels participating in commercial fishing in your area during the year. While the process of creation of these initial lists varies somewhat depending upon the data source, in general a list of distinct vessel ID/Gear/State/County units along with certain gear characteristics is pulled from State Landings data (e.g. trip tickets) and merged with information from the United States Coast Guard regarding vessel physical characteristics. Included in the operating characteristics information are: number of full time crew, type of gear, number and quantity of gear, and the state and county in which the vessel operated during the year. The USCG physical characteristics include the type of hull construction, the gross tonnage, the overall length of the hull (in feet), the horsepower of the engine, and the year in which the vessel was built.

You will receive a file and a due date. The file type will again vary depending on the data source, but is generally either an Excel spreadsheet or a FoxPro dbf file. The column names may also vary but in general will consist of the following columns:

| **Column Name** | **Column Description** |
|---|---|
| VESSELNAME | The name of the vessel. |
| STATE_REG_NUMBER | State Registration Number |
| VESSELNUM | USCG Official number |
| GROSSTONS | The registered gross tonnage of the vessel. |
| VESSELLEN | The length of the vessel in feet. |
| FTCREW | The number of crew members. |
| TYPEOFCONS | Type of construction of the hull |
| GEAR | The NMFS gear code for the gear that was fished by this vessel in this state and county. |
| GEAR DESCRIPTION | Description of the gear that was fished by this vessel in this state and county. |
| GEARNUM | The greatest number of units of gear in use at one time. For example, 4 gillnets. |
| GEARQTY | The greatest quantity of gear used at any one time. For example, 4,000 square yards gill nets or 10,000 hooks. |

| | |
|---|---|
| YEAR | The year in which the vessel fished with these operating characteristics. |
| STATE | The NMFS state code for the state in which the vessel fished with these operating characteristics. |
| COUNTY | NMFS County where the vessel operated. |

With the exception of the columns for CREW, GEARNUM and GEARQTY, most values will already be filled in.

File Completion Protocol

1) Remove Duplicate Vessels

Sort your list by vessel ID number and look for duplicate vessels. It is normal for distinct vessels to appear more than once in your file if they fished with different gears, or landed in different counties in your area during the year. Do not remove these duplications. However, it is possible that duplicate vessels where there is no difference between the records may be inadvertently included in your file. In this case, delete the duplicate. Because duplication may be caused by a data entry error in the vessel ID number, it is also advisable to sort by vessel name after the first duplicate check has been completed, to see if that results in finding more duplicates. Also note that if a vessel has both as USCG number and a State registration number listed, not not remove the state number from the file.

2) Insert Missing Vessels

While the State Landings data used to generate the initial list is in theory comprehensive, it is possible that vessels that fished in your area during the year in question are not represented. If so, they must be added. There are a few ways to determine if vessels are missing:

a. Your own local knowledge of vessels operating in your area,
b. Reviewing your TIP data to make sure all vessel IDs that appear in your interviews for that year also appear in your VOU file,
c. If in the Gulf, reviewing your GSS data to make sure all vessel IDs that appear in your interviews or landings data for that year also appear in your VOU file.
d. Requesting a list of vessels from the Pelagic and Coastal Logbook programs

If you do find missing vessels, insert them into your working files and fill in as much of the information as you can from the data available to you. This will likely be the vessel number, name, gear type, State, and County. Again, remember you could add multiple rows for the same vessel if you know they fished multiple gears or landed in multiple counties, etc. in your area. That will leave the physical characteristics and the gear characteristics still to be filled in. In many cases, the physical characteristics of the vessel can be determined by visiting

http://cgmix.uscg.mil/PSIX/PSIXSearch.aspx and entering the vessel number. Any missing physical characteristics should be left blank.

3) Update Incorrect Information

Review the list and if any of the information provided is incorrect, please edit it to the correct value. Most commonly this will be an incorrect gear type or incorrect county, but could also be vessel physical characteristics. Again, this will be based on your knowledge of your area's vessel operations. It is understood that there will likely be vessels on your list that you are not familiar with, and cannot make any judgment as to the provided data's accuracy. Even for vessels you believe you are familiar with, you should proceed with caution and only update information that you are certain is correct.

4) Input Gear Number and Quantity

For vessels that you are familiar with either through dockside interviews or some other source, input known values for Gear Number and Gear Quantity. Use the below guidance in how to report number and quantity based on gear type:

| **Gear Type** | **Gear Number** | **Gear Quantity** |
|---|---|---|
| Purse, Haul, Stop Seine, Lampara nets | Number of nets used | Aggregate length of all nets in yards |
| Gill and Trammel Nets | Number of nets used | Aggregate area of all nets in square yards |
| Otter and Beam Trawls | Number of nets used | Aggregate length of lead/chain lines in yards |
| Dredges and Scrapes | Number of dredges used | Aggregate width of toothed or notched bottom of dredge in yards |
| Lines of all types (long, set, troll, hand, etc.) | Total number of lines used | Maximum number of hooks used at any one time |
| Harpoons | One per vessel | One per vessel |
| Traps/Pots (lobster, stone/blue crab, fish) | Maximum number of traps used at any one time | Leave blank |

For vessels that you are not familiar with, please estimate the gear number and quantity by using the estimations for different gear types given in Appendix 1.

5) Update Crew Number

For vessels that you are familiar with either through dockside interviews or some other source, input known values for number of crew, using the guidance that the number should represent the maximum number of crew, even if was for only a single trip out of multiple trips with smaller

crews.

For vessels that you are not familiar with, the number of crew must be estimated. There are several methods used to estimate number of crew:

a. Assumption based on known gear, location, and physical characteristics. This method can be used if there are a substantial number of vessels on your list for which crew size is known. Use the number of crew known for these vessels to fill in unknown values for vessels with the same county, length, and gear type.
b. Assumption based on known landings and gear type. This method can be used where landings of individual vessels are known and a substantial number of vessels have existing crew size. Use the number of crew known for these vessels to fill in unknown values for vessels with similar per-trip landings and gear type.
c. Assumption based on provided tables. In some areas tables have been developed based on empirical data. This method is similar to a and b above but rather than being derived from narrow temporal and spatial strata, they are derived over many years and for larger regions. See appendix 1 for an example from the Gulf of Mexico.

Whatever method is used, you should employ the method consistently, document fully, and save for reference.

Appendix 1

**BOATS AND SHORE - OPERATING UNITS**
**Generalized Average Conversion Formulas for Assistance**

| | | |
|---|---|---|
| 020 | Seine, fish | Avg 2 per boat, 300 L yds each |
| 030 | Seine, long | Avg 1 at 100 L yds each |
| 145 | Seine, purse other | Avg 1 at 400 L yds (1 gear per license) |
| 189 | Butterfly net | Avg 2 per boat, 11' across each (3.67 yds) (1 gear per license) |
| 215 | Trawl, shrimp | 1-2 per boat. 1 40' avg div by 3=13.33 yds (1 gear per license) |
| 310 | Hoop net | Avg 4 per boat |
| 330 | Crab traps | Avg 150 traps (range 100-350) |
| 340 | Pots/traps, eel | Avg 25 |
| 345 | Pots/traps, fish (Slat traps) | Avg 40-50 |
| 379 | Pots/traps, other (Minnows) | Avg 12 |
| 387 | Pots excl. (Cane) | Avg 40-50 |
| 425 | Gill net, other | 4-5, 50' long X 3' high div by 9 sq ft=17 sq yds |
| 475 | Gill net, runaround | 1200' X 6 div by 9=800 sq yds X # gear div 100 |
| 530 | Trammel net | 350' long X 4.5' high div by 9 sq ft=175 sq yds X # gear |
| 610 | Hand line | 17 hooks each X # gear |
| 660 | Troll line | 1 hook each X # gear (range 2-8) |
| 675 | Longline set top | Avg 12-15 lines, 17 hooks each |
| 676 | Longline set bottom | Avg 12-15 lines, 17 hooks each |
| 677 | Longline, sharks | Avg 12-15 lines, 17 hooks each |
| 735 | Cast net | 1 per person |
| 760 | Spears (Gigs) | 1 per person |
| 815 | Dredge, oyster | Avg 1 per boat (range 1-2) (1 gear per license) |
| 840 | Tongs, oyster | 1 per person (1 gear per license) |
| 895 | Frog grabs (Gig) | 1 per person |

**VESSEL ADDITIONS**
**GEAR CODE 215 or 189**

| | |
|---|---|
| Vessel greater than 50' | at least 3 crew, 2 trawls at 50' each<br>100 div 3 = 33 yds or 50 div 3 = 17 yds |
| Vessel 31' - 50' | 1 or 2 crew, 1 or 2 40' trawls<br>40 div 3 = 13 yds or 80 div 3 = 27 yds |
| Vessel under 30' | 1 crew, 1 40' - 45' trawl<br>40 div 3 = 13 yds or 45 div 3 = 15 yds<br>Avg would be 1 40' trawl (13 yds) |

Appendix 2

| Gear Code | Gear Name | Crew Number |
|---|---|---|
| 189 | Butterfly Net | 2 |
| 192 | Skimmer Trawl | 2 |
| 310 | Hoop/Fyke | 1 |
| 315 | Hoop/Fyke, Turtle | 1 |
| 330 | Pots and Traps, Crab | 1 |
| 390 | Slat Traps | 2 |
| 425 | Gillnets, Stake | 2 |
| 530 | Trammel Nets | 2 |
| 610 | Hand Lines | 1 |
| 611 | Rod and Reel | 1 |
| 665 | Troll Lines | 1 |
| 680 | Trot Lines | 2 |
| 703 | Dip Nets | 1 |
| 735 | Cast Nets | 1 |
| 815 | Oyster Dredge | 1 |
| 840 | Oyster Tongs | 1 |
| 968 | Cans/Buckets/Drums | 2 |
| 125 | Menhaden | 15 |
| 215 | Shrimp trawl (vessel <30') | 1 |
| 215 | Shrimp trawl (vessel 31'-50') | 2 |
| 215 | Shrimp trawl (vessel>50') | 3 |